



Limetree Bay Overview



May 2021



St. Croix, USVI







Facility History



- Refinery started operation in 1966
- Refinery was built to supply residual fuel oils to the Northeast US market
- Original refinery was referred to as a "Hydroskimming refinery"
 - No heavy oil upgrading capability (e.g. Cat Crackers, Visbreakers, or Cokers)
- Heavy oil upgrading capacity was gradually added beginning in 1981

<u>Year</u>	<u>Project</u>
1981	Conversion of No. 1 Crude Unit to 40MBPD Visbreaker.
1983	Construction of 40MBPD grass roots Visbreaker.
1993	Construction of 110MBPD FCC Unit.
1996	Expansion of FCC Unit to 135MBPD.
2002	Construction of 58MBPD Delayed Coker Complex.
2005	FCC Expander Commissioned- 30 MW



Facility Overview



Limetree Bay owns a world class energy complex including a large flexible refinery and terminal with potential of 34 mmbbls of storage capacity with 12 docks and an offshore SPM

Overview

- Limetree owns the former HOVENSA refinery units, which prior to idling in 2012, constituted one of the ten largest refineries in the world with a peak capacity of 650 mbbls/d
- The Refinery is physically divided into two areas that are connected with process piping that allow streams to move back and forth
 - The Refinery generates its own utilities (water and power) making it self-sufficient from the USVI grid

Asset Description

- Located in St. Croix on ~ 1,500 acres of land, the facility comprises:
 - 350 mbbls/d of potential refining capacity
 - 167 tanks with more than 34 mmbbls of crude oi, refined product, and operational storage capacity
 - A deep water port with 12 total docks
 - SPM buoy to receive VLCCs
 - Five tugboats and five auxiliary boats
 - 128 cottages/houses for employees and 1,400+ person housing facility for project and turnaround workers
 - Approximately 330 acres of undeveloped land with option to purchase

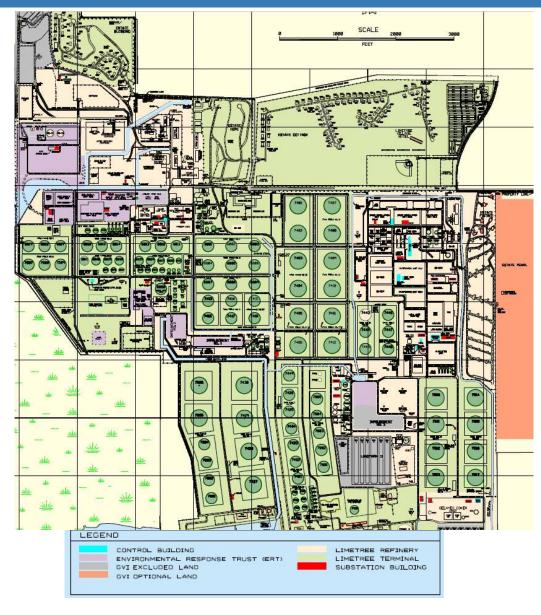
Facility Overhead





Site Review and Land Ownership







Refinery Restart Overview



Overview

- Limetree Bay Refining is operating a 200,000 bpd refinery capable of processing
 - Crude oils, naphthas and fuel oils
- Single train operation (see process units in the table below)
- Auxiliary units supplying utilities and ensuring environmental compliance
- Focus of the restart and selection of the processing scheme is to satisfy the requirements for low sulphur bunker fuel as part of the IMO 2020 regulations.

Key Refining Process Units			
Process Unit	Function / Notes		
Crude Unit	 Front end of most refineries Separates crude oil into hydrocarbon fractions with different boiling ranges 		
Delayed Coker Unit	 Upgrades heavy residual oil from the crude unit into valuable lighter products via the process of thermal cracking 		
Catalytic Reformer	 Produces gasoline blending component and hydrogen for desulfurization 		
Naphtha Hydrotreater	Primarily remove sulfur from the process stream using hydrogen from the		
Kerosene Hydrotreater	reformer unit Produce ultra-low sulfur diesel from crude unit distillate, coker unit naphtha, and gasoil streams		
Diesel Hydrotreater			
Gas oil Hydrotreater	6		



Refinery Restart











No. 5 Crude Unit Fractionator T-3101



No. 3 Vacuum Unit







DD-7 Reactor



No. 4 Platformer Heater









Delayed Coker Unit

Coke Storage Domes







East Refinery





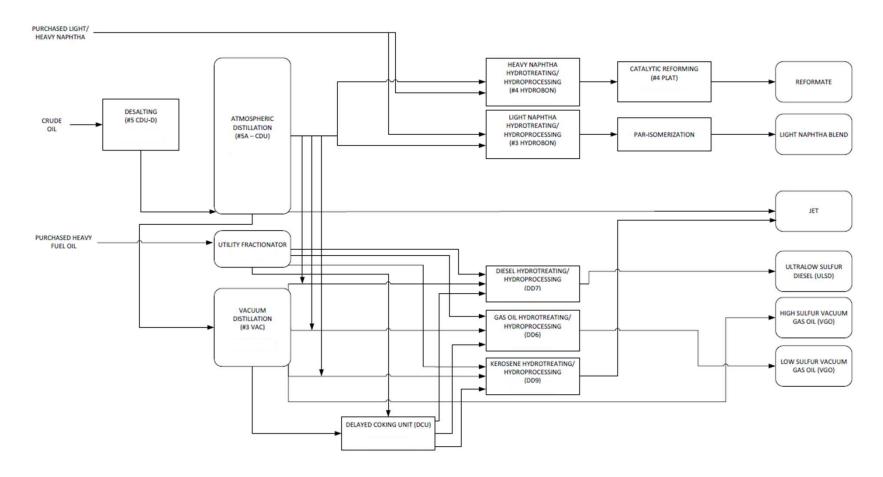


West Refinery



Refinery Flow Diagram









Terminal and Marine Overview







Terminal Overview - Docks



- 10 petroleum docks (draft 39-55 feet) (2 in U.S. Coast Guard caretaker status)
- Bulk product dock (Coker)
- Roll on Roll off dock
- Single point mooring (SPM)
- OSRO Dock



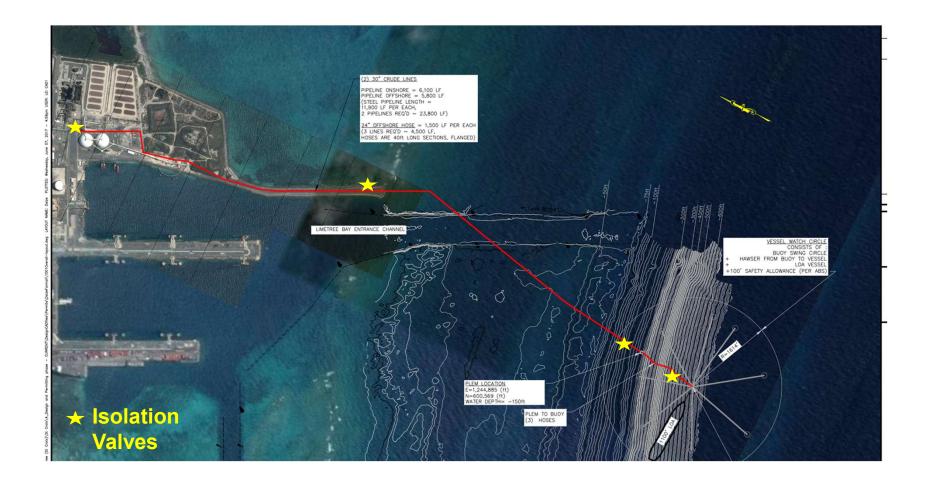






Single Point Mooring





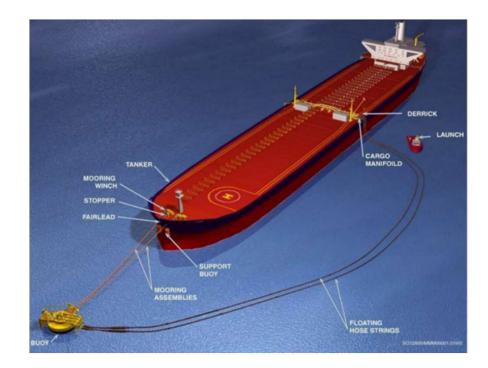


Single Point Mooring



Operations:

- USCG Approved "SPM Operations Manual" meets all the requirements as per 33 CFR 154.310
- 24/7 Mooring master and hold back tug
- Approved Security Zone 33 CFR 165.770
- SPM Telemetry Systems
 - Control system of subsea PLEM valves (HPU)
 - Pressure Transmitters
 - Mooring Load Pin Monitoring System
 - Instrument for pressure and level (HPU)
- SSR Radii Situational Awareness Display





Terminal Overview - Marine



- Marine Department providing Assist Tugs and Pilots to Vessels, including spill response and fire fighting capabilities
 - 70 ton Bollard Pull ASD Tractor Tug
 - 80 ton Bollard Pull ASD Tractor Tug
 - 3 35 ton Bollard Pull Conventional Tugs
 - 2 Jet Drive SPM Line Boats
 - Conventional Line Boat
 - Harbor Assist Boat
 - Security Boat









Truck Rack Operations and Details



- Truck rack operations
 - Jet Fuel
 - Ultra Low Sulfur Diesel
 - Propane
 - Gasoline (Reg & Prem)
- 100% manned during hours of operation
- Strategically located Emergency Shutdown Devices
- Scully truck grounding systems
- Fire protection
- Procedures
- Approved carrier list
- Vapor recovery unit for gasoline operations
- Spill containment area connected to oily/water sewer
- OSHA PSM / RMP for LPG (propane) storage and loading and EPA LDAR compliance





Limetree Contractor Village & Company Houses





Contractor Village & Motel Unit (1,440 capacity)



Company Employee Housing (Estates Cottage & Blessing)



Village Modules Designed for Cat 4 Hurricane (129mph)



121 Houses Designed for Cat 4 Hurricane (129mph)





Health, Safety, Environmental Overview



HSE Policy



Health, Safety and Environment (HSE) Policy Statement

Limetree Bay is unwavering in its commitment to the safety of everyone who works in our facilities and to that of our neighbors. Safety is a core value of our company and is integral to everything that we do.

We conduct our operations in a manner that is protective of the environment. We are committed to excellent environmental performance and understand that this is fundamental to the success of our business. We work continuously to improve our performance through innovation and learning.



At Limetree Bay, we are committed to:

- Zero injuries, occupational illnesses, and incidents; we believe all are preventable;
- Empowering our employees and contractors to immediately stop any work that is unsafe or that poses a threat to the environment;
- Effectively managing process safety risks by properly designing, operating and maintaining equipment;
- Vigorously protecting the environment where we live and work;
- Identifying, assessing and mitigating environmental risks from our operations;
- Listening to feedback from our community and stakeholders; and
- Complying with applicable laws, regulations and requirements.





Commitment to HSE Excellence



- What does HSE excellence mean?
 - We believe that zero is achievable
 - We function as a learning organization
 - We always watch out for each other
- How is HSE leadership demonstrated?
 - We set high expectations
 - We recognize people for good work
 - We hold people accountable
 - We lead by example
- This manifests itself **that on our watch**
 - No one gets hurt
 - No impacts to the environment
 - No transportation incidents







LIMETREE BAY Limetree's Commitment to the Community



We strive to be a valued member of the community where we live and work. We provide support to community-based organizations in the form of grants and sponsorships and volunteerism.

Examples of our community programs include:



SEA TURTLE ASSISTANCE AND RESCUE (STAR) TEAM

As stewards of Limetree Bay's culture, our employees are part of the STAR team, which are permitted volunteers that work to assist our endangered sea turtles. Working closely with the Virgin Islands Department of Planning and Natural Resources (DPNR), the STAR team bring together professionals from the National Park Service, United States Fish and Wildlife, Coral World, St. Croix Environmental Association, National Marine Fisheries Service, University of the Virgin Islands, and The Nature Conservancy. Our Limetree Bay employees donate time to help with rescue events and community education.



WORKFORCE DEVELOPMENT

Ensuring that local students and citizens get the training they need to work in technical careers is important for our business and also for the community. We have several programs in place to support the development of our local workforce. From high school development, university internships, a scholarship program and a Process Technology Program at the University of the Virgin Islands, we invest heavily in our future workforce.

WILDLIFE RESPONSE TRAINING SPONSORSHIP



Limetree Bay sponsored the 13th International Effects of Oil on Wildlife Conference in Baltimore Maryland that brought together industry, agency, and wildlife professionals from around the world. These professionals from five continents and two Tribal Nations gathered to share learnings and the latest techniques for wildlife response.



The Limetree HSE Team



- HSE Department supports the terminal and refinery
- Over 250 years of HSE experience in downstream
- 20+ HSE professionals
- Great people with a variety of company heritages





























Mobile Fire Protection Assets



Response equipment on site

- 1 fire engine, with 3,500 GPM + 1000 gallons foam
- 1 fire engine, with 3,000 GPM + 1000 gallons foam
- 1 fire engine, with 1,500 GPM + 1000 gallons foam
- 1- Municipal engine 1,500 GPM + 1000 gallons water
- 4 X 6,000 GPM firewater booster pumps (Williams Fire)
- 3 remote controlled Williams Ambassador gun trailers 2x8 K
- 36,000 GPM wharf protection by onsite tug fleet with foam
- ~84,000 gallons of firefighting foam onsite







Tank Fire Protection



- · Can extinguish any tank onsite
- Primary water supply for tanks will be from the express mains
 - Utilizing express mains to achieve delivery rate of 16,000 GPM
 - Highest demand is 14,000 GPM for 284' diameter tanks
 - o High volume manifolds
 - Williams portable pumps and guns
 - Feed from 12" supply hose
- Backup water supply from low pressure / high volume system
- Tertiary supply directly from the sea using portable pumps and/or tugboat fire pumps





Emergency Response Team Overview



- 75 personnel pro board fire trained
- Targeting a total of 100 field responders
- 40 trained members of the incident management team
- Employees in company housing are on the team
 - Field responders
 - Command and general staff
 - Consists of members from the operations, technical, maintenance, and support departments
- Tactical responders trained to manage exterior firefighting and hazmat
- Select members trained to the following specialties
 - Interior firefighting
 - Rescue
 - Medical
 - Oil spill response



Limetree Process Safety Management System



- All Units and Interconnects that are part of the Refinery Restart have gone through a PHA.
- The PHA included a HAZOP review and a LOPA review of high severity scenarios (Safety and Environmental).
- All changes at the Refinery are being tracked via the Limetree Bay MOC System.
- MOC packages are created by the MOC Team and QC'd by the MOC Auditor, all discrepancies are addressed prior to sending the packages to the Contractor.
- The MOC Team ensured all the proper sign-off signatures are collected along with ensuring all required MOC
 PSI is available and ensures the proper steps are taken to close out the MOC.
- PSSRs are being performed on all mechanically complete systems.
- PSM Procedures have been uploaded into Content Server and are available to all personnel.
- Operators have completed Introduction to Process Safety Management Training Course.





Environmental Compliance Overview





New Environmental Controls and Monitoring

- Limetree has reconfigured its operations to burn refinery fuel gas (do not plan to burn fuel oil)
- Installed Ultra Low NOx burners in most heaters and boilers
- Installed vapor recovery on the sulfur storage pit.
- Installed an eductor system on the coker drums to minimize venting to atmosphere.
- Upgraded fuel gas treatment unit to lower H₂S concentration of the refinery fuel gas
- Removed high H₂S streams from going to the flare
- Installed a new SRU tail gas treating unit for improved performance and reliability
- Invested in ensuring that all routine flare flows have been eliminated from the flare system.
- Installed soft seat valves to minimize leakage to flare.
- Installed 7 new CEMs/CPMS
- Updated operating procedures for flare-less startup and shutdown.
- Used Low Emissions Packing in valves





LIMETREE BAY Environmental Compliance — Air Emissions





Leak Detection and Repair (LDAR) Program

 Monitoring, inspecting and repairing process piping equipment leaks (valves, flanges, pump seals) throughout the Terminal.

Benzene NESHAPs

• Monitoring, inspecting and repairing wastewater equipment leaks throughout the Terminal.

Title V Permit:

 First permit renewal- application submitted December 2014

PRI Consent Decree:

Enhanced LDAR and BWON

VRU Continuous Emissions Monitor:

 Truck Loading Rack Controls and Continuous Emissions Monitor





Environmental Compliance - Wastewater





Treatment:

- Physical oil and water separation
- Biological in above ground tanks
- All wastewater (recovered ground water, roof drains, tank cleaning, line flushing, maintenance activities, and ship ballast) and stormwater are treated before reuse or discharge into the TPDES permitted outfall
- The WWTP (Wastewater Treatment Plant) historically processed 2400 gallons per minute (3.5 million gallons per day) currently averaging 800 gallons per minute (1.1 million gallons per day)



Monitoring:

- Analyzed for 12 different parameters at Wastewater Treatment Plant effluent and Outfall
- 6 Stormwater Outfalls sampled monthly when sufficient flow
- Annual Whole Effluent Toxicity (WET) test Not performed last year due to COVID-19



LIMETREE BAY Environmental Compliance — Drinking Water





Production:

- 2 Reverse Osmosis unit capable of producing over 1 Million gallons of RO water per day
- Onsite chlorination for drinking water

Monitoring:

 Full compliance with Safe Drinking Water Act



Benzene Fenceline Monitoring







HOVENSA Environmental Response Trust (HERT)



Environmental Response Trust Agreement (HERT) (2-17-2016); HOVENSA L.L.C. (Debtor or Settlor)

District Court of the Virgin Islands; Bankruptcy Division, St. Croix, Virgin Islands

Objective and Purpose of the HERT

- Assume responsibility for and carry out the Environmental Remediation/Compliance Program on the Facility;
- Acting as successor to HOVENSA pay for post-Environmental Response Trust costs and expenses for the Environmental
- Own remaining assets; sell, dispose and transfer assets to facilitate reuse of land;

HERT Pollution Insurance Policy

Policy Term: January 28, 2016-2026 (10 years)

Insurers: Lloyds, Zurich and Ironshore (layered policies)

Policy Limits: \$75 million occurrence/aggregate - excess \$250,000 occurrence and \$1.25 million aggregate

Other Provisions of Insurance: No retro date; insured conditions occurring prior to January 28, 2016 for claims made in policy period; primary and non-contributing; coverage for pollution conditions, transportation and non-owned disposal sites